8.0 CEQA CHECKLIST

Solano Irrigation District	**N/A**	**N/A**
Dist.-Co.-Rte.	P.M/P.M.	E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed Project. In many cases, background studies performed in connection with the Projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. **AESTHETICS:** Would the Project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
II. **AGRICULTURE AND FOREST RESOURCES:** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
III. **AIR QUALITY:** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or Projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒
IV. **BIOLOGICAL RESOURCES:** Would the Project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. **CULTURAL RESOURCES:** Would the Project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code § 21074?	☐	☐	☒	☐
VI. **GEOLOGY AND SOILS:** Would the Project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
VII. **GREENHOUSE GAS EMISSIONS:** Would the Project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐
VIII. **HAZARDS AND HAZARDOUS MATERIALS:** Would the Project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?	☐	☐	☐	☒
f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
IX. **HYDROLOGY AND WATER QUALITY:** Would the Project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒
X. **LAND USE AND PLANNING:** Would the Project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
XI. **MINERAL RESOURCES:** Would the Project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XII. **NOISE:** Would the Project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	☐	☒	☐	☐
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☐	☒
f) For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☐	☒
XIII. **POPULATION AND HOUSING:** Would the Project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. **PUBLIC SERVICES:**				
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒
XV. **RECREATION:**				
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVI. **TRANSPORTATION/TRAFFIC:** Would the Project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒
XVII. **UTILITIES AND SERVICE SYSTEMS:** Would the Project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒
XVIII. **MANDATORY FINDINGS OF SIGNIFICANCE:**				
a) Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?	☐	☐	☒	☐
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Appendix A:
SHPO Concurrence Letter

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov

November 30, 2015

Reply in Reference To: BUR_2015_1106_002

Anastasia T. Leigh
Regional Environmental Officer
United States Department of the Interior
Bureau of Reclamation
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, CA 95825-1898

Dear Ms. Leigh:

Re: National Historic Preservation Act (NHPA) Section 106 Consultation for the Sweeney/McCune Creek Outflow Recovery and Automation Project, Solano County, California (14-MPRO-234)

Thank you for your November 2, 2015 letter initiating consultation with the State Historic Preservation Officer (SHPO) for the above referenced undertaking. The Bureau of Reclamation (Reclamation) is consulting with the SHPO to comply with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f), as amended, and it's implementing regulations 36 CFR 800. Your letter requests SHPO concurrence on the Reclamation's determination of eligibility (36 CFR §800.4(c)(2)) and finding of no historic properties affected (36 CFR §800.4(d)(1)) as a result of this undertaking.

Reclamation proposes to provide funding through a WaterSMART grant to the Solano Irrigation District (SID) to construct two long crested weirs on Sweeney Creek and McCune Creek at their confluence, within an unincorporated area of Solano Creek. The area of potential effects (APE) encompasses 18.5 acres and includes the weir structure construction zones, staging areas, vehicle access along existing farm roads, vegetation clearing within the creek channels, and construction of temporary ramps within the creek channels to allow for construction of the weirs. The vertical APE will vary with a maximum depth of 9 feet at the creek bottoms. I find the Reclamation's determination and documentation of the APE to be sufficient (36 CFR §800.4(a)(1)).

Supporting documentation (36 CFR §800.11(a)) submitted with your letter includes the *Sweeney/McCune Creek Outflow Recovery and Automation Project Solano County, California* report (Dunay 2015).

Efforts to identify historic properties within the APE (36 CFR §800.4(b)(1)) were conducted by Dokken Engineering. These efforts are detailed in Dunay 2015 and consisted of a record search and an intensive pedestrian survey of the entire APE. The pedestrian survey identified the following four cultural resources within the APE: concrete bridge abutment remnants, an irrigation ditch and the Sweeney and McCune Creek channels.

The Reclamation also sought information from the Yocha Dehe Wintun Nation and the Cortina Band of Indians pursuant to 36 CFR §800.3(f)(2) to assist in identifying properties which may be of religious and cultural significance to them and may be eligible for listing in the NRHP (36 CFR §§800.4(a)(4) and 800.4(b)). Dokken Engineering also sent letters to Native American individuals and groups identified during the Native American Heritage Commission sacred land files search. I find the Reclamation's level of effort in identifying historic properties within the APE to be sufficient (36 CFR §800.4(b)(1)).

Reclamation has determined that the concrete bridge abutment remnants, an irrigation ditch and the Sweeney and McCune Creek channels are not eligible for the National Register of Historic Places. Based on my review of the submitted documentation, I concur.

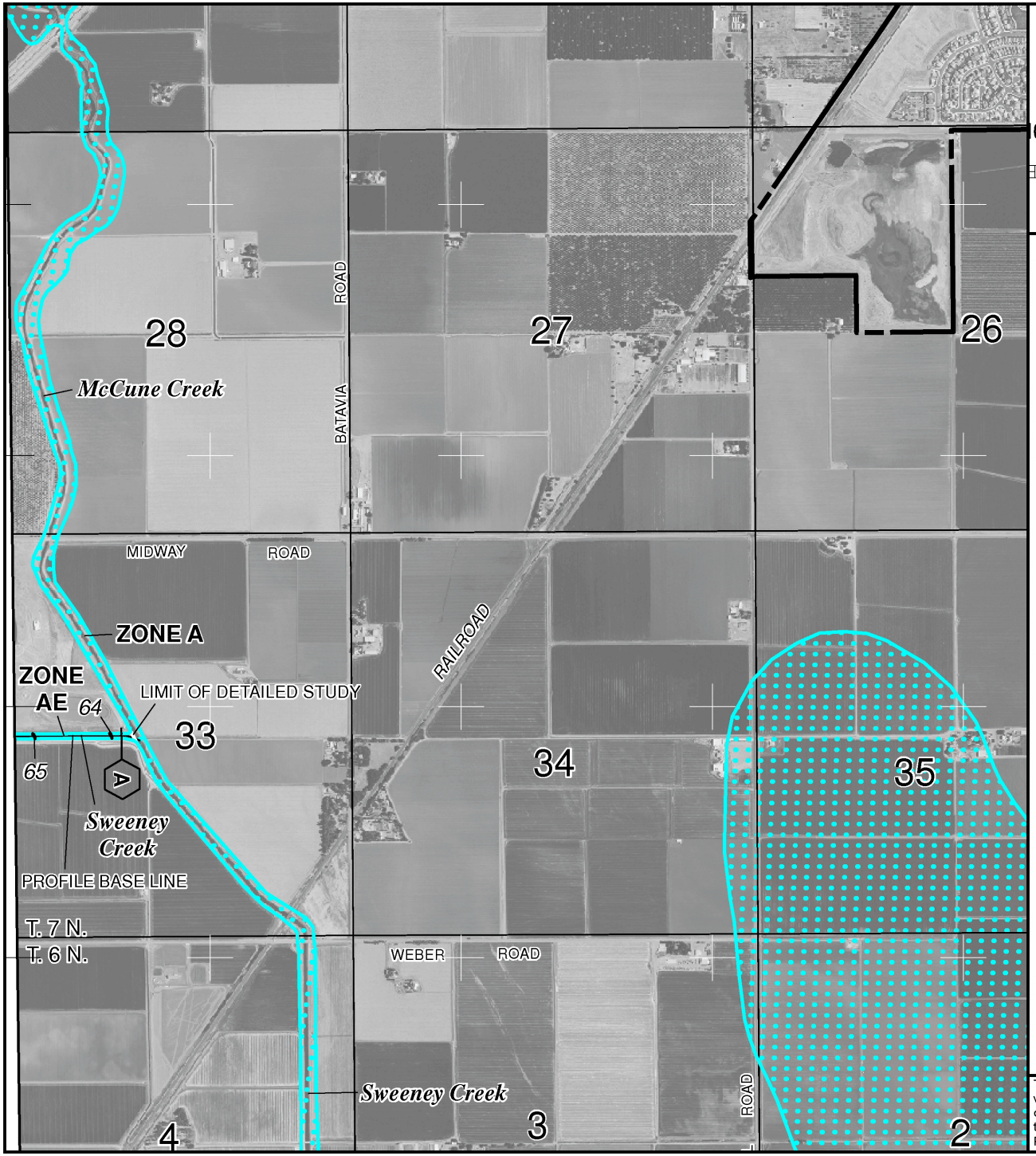
Based on the Reclamation's level of effort, they have determined a finding of no historic properties affected as a result of this undertaking (36 CFR §800.4(d)(1)). I do not object to your finding.

Thank you for seeking my comments and considering historic properties as part of your undertaking. Please be advised that under certain circumstances, such as post-review discoveries or a change in the undertaking description, you may have future responsibilities for this undertaking under 36 CFR Part 800. If you require further information, please contact Alicia Perez at 916-445-7020 or at Alicia.Perez@parks.ca.gov or Kathleen Forrest at 916-445-7022 or at Kathleen.Forrest@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

Appendix B:
FEMA Firmette Map



MAP SCALE 1" = 2000'

000 0 2000 4000 FEET

METE

PANEL 0200F

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

SOLANO COUNTY, CALIFORNIA

AND INCORPORATED AREAS

PANEL 200 OF 730

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SOLANO COUNTY	060631	0200	F
DIXON, CITY OF	060369	0200	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06095C0200F

MAP REVISED
AUGUST 2, 2012

Federal Emergency Management Agency

Appendix C:
Road Construction Emissions Model

Road Construction Emissions Model, Version 7.1.5.1

Emission Estimates for -> Sweeney/McCune Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	2.3	12.5	18.8	10.9	0.9	10.0	2.9	0.8	2.1	2,265.0
Grading/Excavation	6.3	31.6	60.0	13.0	3.0	10.0	4.8	2.7	2.1	6,316.0
Drainage/Utilities/Sub-Grade	6.1	30.4	50.8	13.0	3.0	10.0	4.8	2.7	2.1	5,675.6
Paving	3.4	17.9	24.7	1.7	1.7	-	1.5	1.5	-	3,048.7
Maximum (pounds/day)	6.3	31.6	60.0	13.0	3.0	10.0	4.8	2.7	2.1	6,316.0
Total (tons/construction project)	0.1	0.6	1.1	0.2	0.1	0.2	0.1	0.1	0.0	115.0

Notes:

Project Start Year ->	2016
Project Length (months) ->	2
Total Project Area (acres) ->	60
Maximum Area Disturbed/Day (acres) ->	1
Total Soil Imported/Exported (yd^3/day)->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimates for -> Sweeney/McCune Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	Total PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	Total PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	1.1	5.7	8.5	5.0	0.4	4.5	1.3	0.4	0.9	1,029.5
Grading/Excavation	2.9	14.4	27.3	5.9	1.3	4.5	2.2	1.2	0.9	2,870.9
Drainage/Utilities/Sub-Grade	2.8	13.8	23.1	5.9	1.3	4.5	2.2	1.2	0.9	2,579.8
Paving	1.6	8.1	11.2	0.8	0.8	-	0.7	0.7	-	1,385.8
Maximum (kilograms/day)	2.9	14.4	27.3	5.9	1.3	4.5	2.2	1.2	0.9	2,870.9
Total (megagrams/construction project)	0.1	0.5	1.0	0.2	0.1	0.2	0.1	0.0	0.0	104.3

Notes:

Project Start Year ->	2016
Project Length (months) ->	2
Total Project Area (hectares) ->	24
Maximum Area Disturbed/Day (hectares) ->	0
Total Soil Imported/Exported (meters^3/day)->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sume of exhaust and fugitive dust emissions shown in columns K and L.

Appendix D:
CNDDB, CNPS and USFWS Special Status Species Database Results

Regional Sensitive Species

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Amphibian/Reptile Species						
California red-legged frog	*Rana draytonii*	Fed: CA: DFW:	T -- SSC	Found in lowlands and foothills in or near deep permanent water sources with dense or shrubby riparian vegetation. Occupies a fairly distinct habitat, combining both specific aquatic and riparian components. Adults require dense, shrubby or emergent riparian vegetation closely associated with deep, still, or slow moving water.	A	**Presumed absent.** The project site lacks deep slow moving water sources with dense shrubby riparian vegetation; habitat unsuitable for California red-legged frog. Additionally, the nearest CNDDB occurrence is greater than 20 miles southwest of the project area.
California tiger salamander	*Ambystoma californiense*	Fed: CA: DFW:	T T SSC	Inhabits annual grasslands and the grassy understory of valley-foothill hardwood communities. Requires underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	A	**Presumed absent.** The project site lacks sufficient ground squirrel burrows and vernal pools. The nearest recorded CNDDB occurrence is approximately 5 miles northeast; however this occurrence has been determined extirpated. Habitat unsuitable for California tiger salamander.
Giant garter snake	*Thamnophis gigas*	Fed: CA: DFW:	T -- --	Inhabits marsh, swamp, wetland (including agricultural wetlands), sloughs, ponds, rice fields, low gradient streams and irrigation/drainage canals adjacent to uplands. Ideal habitat contains both shallow and deep water with variations in topography. Species requires adequate water during the active season (April-November),	A	**Presumed absent.** According to the Solano Habitat Conservation Plan (SCWA, 2012), GGS is associated with the valley floor grassland, vernal pool natural communities, and other aquatic habitats such as flooded rice fields. These habitats are not found within the BSA or surrounding area. Because of the general lack of extensive flooded

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat and mammal burrows estivation. Requires grassy banks and openings in waterside vegetation for basking and higher elevation uplands for cover and refuge from flood waters during winter dormant season.		fields in Solano County and the apparent landscape level relationships between the quality of the aquatic habitat and surrounding land uses, GGS is presumed to be restricted to areas that would have appropriate cover, high food availability, and upland refuge (Halstead et al 2010). The proposed project area within Sweeney and McCune creek is highly disturbed by agricultural practices. The adjacent upland habitat is regularly disced and is comprised of established stone fruit orchards and non-flooded agriculture crops (sunflowers), unsuitable for the species. In addition, the banks of the creeks contain limited to no mammal burrows for the species' estivation needs. Further, the channels contain a narrow (<1 foot wide) strip of, emergent vegetation which does not provide adequate habitat for the species' escape cover or foraging. According to the Solano HCP, areas supporting what would generally be considered marginal to poor habitat or small isolated patches of good habitat, such as that within the proposed project area, are presumed to not

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						support GGS in Solano County due to the lack of surrounding aquatic habitats (*i.e.,* rice fields). The range of GGS in Solano County, based on only three known records (CDFG 2015), is confined to the Yolo Bypass area and the tidally influenced area in the eastern portion of the County (Wylie and Martin 2004) which are approximately 8 miles east of the BSA. This location lacks connectivity to the project area and is surrounded by regularly disked agricultural land with little to no vegetative cover. Additionally, USGS conducted GGS surveys in 2004 and 2005 at a number of other locations, including the historical record sites in Solano County that they determined would be most likely to support this species, but none were found (Wylie and Martin 2004). Based on the lack of GGS records from Solano County and the lack of recent observations it appears that GGS is very rare or may have been extirpated from Solano County. Solano County fell within the lowest of the suitability categories in an analysis of the potential habitat

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						distribution in the Sacramento Valley (Halstead et al 2010). Based on a lack of suitable habitat in the BSA and surrounding area and a lack of recent regional occurrences of the species, the species is presumed absent from the BSA.
Western pond turtle	*Emys marmorata*	Fed: CA: DFW:	-- -- SSC	A fully aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Requires basking sites and suitable (sandy banks or grassy open field) upland habitat for reproduction (4,690 feet).	HP	**Present**: The BSA contains potentially suitable stream channel habitat and aquatic vegetation for the species. The species was observed within the BSA in McCune Creek. The nearest CNDDB occurrence of the species is approximately 10 miles from the BSA within Travis Air Force Base with no connectivity to the project area.
Bird Species						
Burrowing owl	*Athene cunicularia*	Fed: CA: DFW:	-- -- SSC	Species inhabits arid, open areas with sparse vegetation cover such as deserts, abandoned agricultural areas, grasslands, and disturbed open habitats. Requires friable soils for burrow construction (Below 5,300 feet).	HP	**Low/Moderate potential.** The project site contains sparse vegetation cover and disturbed open habitats with suitable mammal burrows on the western side of the project. The nearest recorded CNDDB occurrence is approximately 1.2 miles north of the project area. During biological surveys, no burrowing owl sign was observed.
Swainson's hawk	*Buteo swainsoni*	Fed: CA:	-- T	Inhabits grasslands with scattered trees, juniper-sage	HP (foraging)	**High potential.** The project site contains Swainson's hawk

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
		DFW:	--	flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, alfalfa or grain fields that support a stable rodent prey base. Breeds March to late August.		foraging areas. Minimal nesting habitat is located within the project area at the eastern end of the BSA along Batavia road approximately 0.5 miles east of the project site. Equipment disturbance in this area would be limited to driving down farm roads by nesting habitat to access the project site. Construction activities would only occur within the channel at the confluence of Sweeney and McCune creek. Approximately 30 occurrences of the species occur within 2 miles of the project site. During biological surveys Swainson's hawk was observed flying over project site; however, no nesting was observed within the BSA.
Tricolor blackbird	*Agelaius tricolor*	Fed: CA: DFW:	-- -- SSC	Inhabits freshwater marsh, swamp and wetland communities that can support large colonies. Requires protected dense nesting habitat, preferably in emergent wetland vegetation and foraging area with insect prey in close proximity to colony.	A	**Presumed absent:** The project area lacks adequate freshwater marsh, swamp or wetland communities sufficient to support a colony: habitat unsuitable for tricolor blackbird. Additionally, the nearest reported CNDDB occurrence is approximately 8 miles north of the project area.
White-tailed kite	*Elanus leucurus*	Fed: CA: DFW:	-- -- FP	Inhabits rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Prefers open	A	**Low/Moderate potential.** The BSA contain foraging habitat for white-tailed kite. The nearest CNDDB occurrence is approximately 0.5 miles east with

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				grasslands, meadows or marshes for foraging close to isolated, dense-topped trees for nesting and perching. Breeds February-October.		suitable nesting habitat. Minimal nesting habitat is located within the project area at the eastern end of the BSA along Batavia road approximately 0.5 miles east of the project site. Equipment disturbance in this area would be limited to driving down farm roads by nesting habitat to access the project site. Construction activities would only occur within the channel at the confluence of Sweeney and McCune creek. The species was not observed during the May 13, 2015 biological surveys.
Fish Species						
Central Valley steelhead	*Oncorhynchus mykiss*	Fed: CA: DFW:	T -- --	Spawning occurs in small tributaries on coarse gravel beds in riffle areas. Central Valley steelhead are found in the Sacramento River system; the principal remaining wild populations spawn annually in Deer and Mill Creeks in Tehama County, in the lower Yuba River, a small population in the lower Stanislaus River.	HP	**Presumed absent.** The project area transects Sweeney and McCune Creek, permanent water sources. Central Valley Steelhead are not historically known to occur within these channels, and a preliminary search of tributaries, New Alamo Creek and Ulatis Creek, did not yield data or reports related to the historical presence of the species (SCWA, 2012). McCune Creek originates from Putah Creek and Sweeney Creek originates in the English Hills. Both flow southeast until becoming channelized upstream of their confluence, prior to the

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						project area (USFWS, 2015b). Putah Diversion Dam diverts water coming out of Lake Berryessa into the Putah South Canal. The Putah South Canal diversion at the Putah Diversion Dam is the upstream terminus of steelhead migration within the area. Downstream of the Putah Diversion Dam and the confluence of Sweeney Creek and McCune Creek, McCune Creek joins Ulatis Creek through the Cache Slough. The existing channels empty surface water into Liberty Island/Cache Slough, though only when rain events are extreme and run-off is in excess. Multiple potential fish passage barriers are located in Sweeney Creek between the project and ocean waters. These barriers primarily take the form of irrigation weirs and control structures with vertical drops ranging from 4 to 9 feet in height and likely exclude anadromous fish from the project area. 11 additional potential fish passage barriers were also identified upstream of the project area that would prevent anadramous fish from accessing potentially suitable spawning habitat higher in the watershed

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						(Solano HCP 2012). In addition, no suitable spawning habitat is present within the BSA and water temperatures within the channels during irrigation season are not conducive for survival of any life stage of the species. Based on a lack of suitable habitat in the BSA and surrounding area, and a lack of connectivity to areas with recent occurrences of the species, the species is presumed absent from the BSA.
Delta smelt	*Hypomesus transpacificus*	Fed: CA: DFW:	T E --	Occurs within the Sacramento-San Joaquin Delta and seasonally within the Suisun Bay, Carquinez Strait and San Pablo Bay. Most often occurs in partially saline waters.	HP	**Presumed absent.** The project area transects Sweeney Creek and McCune Creek, permanent water sources. The species is not historically known to occur within these channels. The project site occurs outside of designated Critical Habitat. The operations of the irrigation system fluctuates flow throughout the year and even lacks water seasonally; therefore not accommodating anadromous fish species. Additionally, 7 miles downstream of the project site, a fish barrier within Ulatis Creek is present which likely is excluding Delta smelt from the BSA.
Longfin smelt	*Spirinchus thaleichthys*	Fed: CA: DFW:	C T SSC	Resides in California and are primarily an anadromous estuarine species that can tolerate salinities ranging from	HP	**Presumed absent.** The project area transects Sweeney Creek and McCune Creek, permanent water sources. The species is not

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				freshwater to nearly pure seawater. Prefers temperatures in the range of 16-18°C and salinities ranging from 15-30 ppt. Their spatial distribution within a bay or estuary is seasonally variable. Longfin smelt may also make daily migrations; remaining deep during the day and rising to the surface at night.		historically known to occur within these channels. The operations of the irrigation system fluctuates flow throughout the year and even lacks water seasonally; therefore not accommodating anadromous fish species. Additionally, 7 miles downstream of the project site, a fish barrier within Ulatis Creek likely excluding longfin smelt from the project area.
Invertebrate Species						
Conservancy fairy shrimp	*Branchinecta conservatio*	Fed: CA: DFW:	E -- --	Inhabits relatively large and turbid clay bottomed playa vernal pools. Species requires pools to continuously hold water for a minimum of 19 days and must remain inundated into the summer months. Occupied playa pools typically are 1 to 88 acres in size, but species may to utilize smaller, less turbid pools.	A	**Presumed absent.** The project site lacks vernal pools; habitat unsuitable for conservancy fairy shrimp. Addionally, the nearest recorded CNDDB occurrence is approximately
Delta green ground beetle	*Elaphrus viridis*	Fed: CA: DFW:	T -- --	A species closely associated with vernal pools. Species restricted to Jepson Prairie area in Solano County. Females lay eggs in the early winter.	A	**Presumed absent.** The project site lacks vernal pools and is located approximately 10 miles northwest of the Jepson Prairie area. Habitat unsuitable for Delta green ground beetle.
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Fed: CA: DFW:	T -- --	Species requires elderberry shrubs as host plants. Typically occurs in moist valley oak woodlands associated with riparian corridors in the lower Sacramento River and upper	A	**Presumed absent.** During field surveys in May 13, 2015 no elderberry shrubs, host plants for valley elderberry longhorn beetle, were observed. Additionally, the nearest recorded occurrence is

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				San Joaquin River drainages. (Sea level-3,000 feet).		approximately 5 miles north of the project area.
Vernal pool fairy shrimp	*Branchinecta lynchi*	Fed: CA: DFW:	T -- --	In California inhabits portions of Tehama county, south through the Central Valley, and scattered locations in Riverside County and the Coast Ranges. Species associated with smaller and shallower cool-water vernal pools approximately 6 inches deep and short periods of inundation. Inhabited pools have low to moderate levels of alkalinity and total dissolved solids. The shrimp are temperature sensitive, requiring pools below 50 F to hatch and dying within pools reaching 75 F. Young emerge during cold-weather winter storms.	A	**Presumed absent:** The project site lacks deep cool-water vernal pools with elevated alkaline levels; habitat unsuitable for vernal pool fairy shrimp. Additionally, the nearest recorded CNDDB occurrence is approximately 1 mile north of the project area.
Vernal pool tadpole shrimp	*Lepidurus packardi*	Fed: CA: DFW:	E -- --	Inhabits vernal pools and swales containing clear to highly turbid waters such as pools located in grass bottomed swales of unplowed grasslands, old alluvial soils underlain by hardpan, and mud-bottomed pools with highly turbid water.	A	**Presumed absent.** The project site lacks the requisite vernal pools and swales; habitat unsuitable for vernal pool tadpole shrimp. Additionally, the nearest recorded occurrence is approximately 6.5 miles from the project area.
Plant Species						
Alkali milk-vetch	*Astrangalus tener var. tener*	Fed: CA: CNPS:	-- -- 1B.2	An annual herb inhabiting low ground and alkaline soils of playas, alkaline flats, vernally moist meadows, vernal pools, and valley and foothill grassland	A	**Presumed absent.** The project site lacks vernally moist meadows with adobe clay or alkaline soils. Habitat unsuitable for alkali milk-vetch. Additionally the nearest

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				with adobe clay. Flowers March–June (0-197 feet).		recorded CNDDB occurrence are greater than 5 miles from the project area and are possibly extirpated.
Adobe lily	*Fritillaria pluriflora*	Fed: CA: CNPS:	-- -- 1B.2	A perennial bulbiferous herb inhabiting chaparral, cismontane woodlands and valley and foothill grasslands with adobe soils. Flowers February-April (195-2,312 feet).	A	**Presumed absent.** The project site is no greater than 62 feet, well outside the lower elevation range; habitat unsuitable for adobe lily.
Baker's navarretia	*Navarretia leucocephala* ssp. *bakeri*	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grasslands, and vernal pool with mesic soils. Flowers April-July (16-5,708 feet).	A	**Presumed absent.** The project site lacks cismontane woodlands, lower montane coniferous forests, meadow and seeps and vernal pools with mesic soils. Habitat unsuitable for Baker's navarretia. Additionally, the nearest recorded CNDDB occurrence is approximately 4 miles of the project area.
Bearded popcornflower	*Plagiobothrys hystriculus*	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting mesic valley and foothill grassland, vernal pool margins and vernal swales. Flowers April-May (0-899 feet).	A	**Presumed absent.** The project site lacks vernal pools and vernal swales. Habitat unsuitable for bearded popcornflower. Additionally, the nearest recorded CNDDB occurrence is approximately 4.5 miles of the project area.
Boggs Lake hedge-hyssop	*Gratiola heterosepala*	Fed: CA: CNPS:	-- E 1B.2	An annual herb inhabiting clay soils and shallow waters of marshes and swamps, lake margins, and vernal pools. Flowers April-August (33-7,792 feet).	A	**Presumed absent.** The project site lacks shallow marshes and swamps, lake margins and vernal pools with clay soils. Habitat unsuitable for Boggs Lake hedge-hyssop. Additionally, the nearest

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						recorded CNDDB occurrence is approximately 8.5 miles of the project area.
Bolander's water-hemlock	*Cicuta maculate var. bolanderi*	Fed: CA: CNPS:	-- -- 2B.1	A perennial herb inhabiting coastal marshes and swamps with fresh or brackish water. Flowers July-September (6-660 feet).	A	**Presumed absent.** The project site lacks coastal marshes and swamps with brackish waters. Habitat unsuitable for Bolander's water-hemlock. Additionally, the nearest recorded CNDDB occurrence is approximately 10 miles of the project area.
Brittlescale	*Atriplex depressa*	Fed: CA: CNPS:	-- -- 1B.2	An annual herb inhabiting alkaline, clay soils of chenopod scrub, meadows and seeps, playas, vernal pools and valley and foothill grassland communities. Flowers June–October (0-1,049 feet).	A	**Presumed absent.** The project site lacks alkaline or clay soils, meadows and seeps, playas and vernal pools. Habitat unsuitable for brittlescale. Additionally, the nearest recorded CNDDB occurrence is approximately 9.5 miles of the project area.
Carquinez goldenbush	*Isocoma argute*	Fed: CA: CNPS:	-- -- 1B.1	A perennial shrub inhabiting valley and foothill grasslands with alkaline soils. Flowers August-December (0-65 feet).	A	**Presumed absent.** The project site lacks alkaline soils; habitat unsuitable for Carquinez goldenbush. Additionally, the nearest recorded CNDDB occurrence is approximately 5 miles of the project area.
Colusa grass	*Neostapfila colusana*	Fed: CA: CNPS:	T E 1B.1	An annual herb inhabiting adobe soils of large or deep vernal pools. Flowers May –August (0-656 feet).	A	**Presumed absent.** The project site lacks large, deep vernal pools with adobe clay soils. Habitat unsuitable for Colusa grass. Additionally, the nearest recorded CNDDB occurrence is approximately 10 miles of the project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Contra Costa goldfields	*Lasthenia conjugens*	Fed: CA: CNPS:	E -- 1B.1	An annual herb inhabiting cismontane woodland, alkaline playas, valley and foothill grasslands, and vernal pools with mesic soils. Flowers March-June (0-1,541 feet).	A	**Presumed absent.** The project site lacks cismontane woodland, alkaline playas, and vernal pools with mesic soils. Habitat unsuitable for Contra Costa goldfields. Additionally, the nearest recorded CNDDB occurrence is approximately 7 miles of the project area and possibly extirpated.
Delta mudwort	*Limosella australis*	Fed: CA: CNPS:	-- -- 2B.1	A perennial herb inhabiting low elevation muddy banks of coastal wetlands and estuaries. Flowers April (0-10 feet).	A	**Presumed absent.** The project site is well outside the upper elevation range of the species; habitat unsuitable for Delta mudwort.
Delta tule pea	*Lathyrus jepsonii* var. *jepsonii*	Fed: CA: CNPS:	-- -- 1B.2	A perennial herb inhabiting freshwater and brackish marshes and riparian communities. Flowers May - July (0-15 feet).	A	**Presumed absent.** The project site is well outside the upper elevation range of the species; habitat unsuitable for Delta tule pea.
Dwarf downingia	*Downingia pusilla*	Fed: CA: CNPS:	-- -- 2B.2	An annual herb inhabiting vernal pools and mesic valley and foothill grassland communities. Flowers March-May (3-1,460 feet).	A	**Presumed absent.** The project site lacks the requisite vernal pool communities; habitat unsuitable for dwarf downingia. Additionally, the nearest recorded CNDDB occurrence is approximately 4.5 miles of the project area.
Ferris' milk-vetch	*Astragalus tener var. ferrisiae*	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting alkaline flats, vernally moist meadows, and valley and foothill grasslands. Flowers April -May (6-250 feet).	A	**Presumed absent.** The project site lacks the requisite alkaline flats and vernally moist meadows; habitat unsuitable for Ferris' milk-vetch. Additionally, the nearest recorded CNDDB occurrence is approximately 7 miles of the

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						project area.
Fragrant fritillary	*Fritillaria liliacea*	Fed: CA: CNPS:	-- -- 1B.2	A perennial herb (bulb) inhabiting cismontane woodlands, coastal prairies, coastal scrub, valley and foothill grasslands and vernal pools with serpentine soils. Blooms February-April (9-1,345 feet).	A	**Presumed absent.** The project site lacks cismontane woodlands, coastal prairies and vernal pools with serpentine soils. Habitat unsuitable for fragrant fritillary. Additionally, the nearest recorded CNDDB occurrence is approximately 9 miles of the project area.
Heartscale	*Atriplex cordulata var. cordulata*	Fed: CA: CNPS:	-- -- 1B.2	An annual herb inhabiting saline or alkaline soils of chenopod scrub, meadows and seeps, and sandy valley and foothill grassland communities. Flowers June –July (0-1,837 feet).	A	**Presumed absent.** The project site lacks meadows and seeps, and chenopod scrub with saline or alkaline soils. Habitat unsuitable for heartscale. Additionally, the nearest recorded CNDDB occurrence is approximately 8 miles of the project area.
Heckard's pepper-grass	*Lepidium latipes var. heckardii*	Fed: CA: CNPS:	-- -- 1B.2	An annual herb found in alkaline flats within valley and foothill grasslands. Flowers March-May (0 - 660 feet).	A	**Presumed absent.** The project site lacks alkaline flats. Habitat unsuitable for Heckard's pepper-grass. Additionally, the nearest recorded CNDDB occurrence is approximately 7 miles of the project area.
Hispid salty bird's-beak	*Chloropyron molle* spp. *hispidum*	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting moist alkaline soils of saline marshes and flats, meadows and seeps, playas, and valley and foothill grassland communities. Flowers June-July (0-509 feet).	A	**Presumed absent.** The project site does not contain the requisite alkaline soils or saline marshes and flats, meadows and seeps; habitat unsuitable for hispid salty bird's beak. Additionally, the nearest recorded CNDDB occurrence is approximately 10 miles of the project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Legenere	*Legernere limosa*	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting wet areas, vernal pools, and ponds. Flowers May-June (0-2,887 feet).	H	**Presumed absent.** The project site contains wet areas; however the nearest occurs is greater than 10 miles and is located within vernal pools. During botanical surveys May 13, 2015 the species was not observed.
Mason's lilaeopsis	*Lilaeopsis masonii*	Fed: CA: CNPS:	-- -- 1B.1	A perennial rhizomatous herb found exclusively in the Sacramento-San Joaquin River Delta and San Francisco Bay. Found in low elevation freshwater and brackish mashes adjacent to surface water. Flowers April - November (0 - 100 feet).	A	**Presumed absent.** The project site lacks freshwater or brackish marshes adjacent to surface water; habitat unsuitable for Mason's lilaeopsis. Additionally, the nearest recorded CNDDB occurrence is approximately 9 miles of the project area.
Pappose tarplant	*Centromadia parryi* ssp. *parryi*	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting chaparral, coastal scrub, meadows, seeps, marshes, swamps (coastal salt), and valley foothill grasslands often with alkaline soils. Flowers May - November (0 – 1,377 feet.).	A	**Presumed absent.** The project site lacks chaparral, coastal scrub, meadows and seeps with alkaline soils. Habitat unsuitable for pappose tarplant. Additionally, no recent CNDDB occurrences of the species have been documented.
Recurved larkspur	*Delphinium recurvatum*	Fed: CA: CNPS:	-- -- 1B.2	A perennial herb inhabiting poorly drained, fine, alkaline soils in chenopod scrub, Atriplex scrub, cismontane woodland, and valley and foothill grassland communities. Flowers March-June (10- 2,592 feet).	A	**Presumed absent.** The project site lacks poorly drained soils and chenopod scurb, and Atriplex scrub communities. Habitat unsuitable for recurved larkspur. Additionally, the nearest recorded CNDDB occurrence is approximately 6 miles of the project area.
Round-leaved	*California*	Fed:	--	An annual herb inhabiting clay	A	**Presumed absent.** The project

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
filaree	*macrophylla*	CA: CNPS:	-- 1B.1	soils and open sites of valley and foothill grassland and cismontane woodland communities. Flowers March-May (49-3,937 feet).		site lacks clay soils; habitat unsuitable for round-leaved filaree. Additionally, no recent CNDDB occurrences of the species have been documented.
Saline clover	*Trifolium hydrophilum*	Fed: CA: CNPS:	-- -- 1B.2	An annual herb inhabiting mesic alkaline soils within marshes, swamps, vernal pools, and valley/ foothill grasslands. Flowers April-June (0 – 1,000 feet).	A	**Presumed absent.** The project site lacks marshes, swamps, and vernal pools with mesic alkaline soils. Habitat unsuitable for saline clover. Additionally, the nearest recorded CNDDB occurrence is approximately 7 miles of the project area.
San Joaquin spearscale	*Extriplex joaquinana*	Fed: CA: CNPS:	-- -- 1B.2	An annual herb inhabiting alkaline soils of chenopod scrub, meadows and seeps, playas and valley and foothill grassland communities. Flowers April-September (0-2,739 feet).	A	**Presumed absent.** The project site lacks chenopod scrub, and meadows and seeps with alkaline soils. Habitat unsuitable for San Joaquin spearscale. Additionally, no recent CNDDB occurrences of the species have been documented.
San Joaquin Valley orcutt grass	*Orcuttia inaequalis*	Fed: CA: CNPS:	-- -- 1B.2	An annual herb inhabiting vernal pools of valley grassland, freshwater wetlands, and wetland-riparian communities. Flowers April –September (33-2,624 feet).	A	**Presumed absent.** The project site lacks vernal pools. Habitat unsuitable for San Joaquin Valley orcutt grass. Additionally, the nearest recorded CNDDB occurrence is approximately 10 miles of the project area.
Showy Rancheria clover	*Trifolium amoenum*	Fed: CA: CNPS:	E -- 1B.1	An annual herb inhabiting moist, heavy soils of disturbed places, coastal bluff scrub and sometimes serpentine soils of valley and foothill grassland communities. Flowers April -	A	**Presumed absent.** The project site contains heavily disturbed soils; however during May 2015 botanical surveys, no coastal bluff scrub communities were observed. Additionally, no recent

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				June (0-1,361 feet).		CNDDB occurrences of the species have been documented.
Solano grass	*Tuctoria mucronata*	Fed: CA: CNPS:	E E 1B.1	An annual herb inhabiting valley and foothill grasslands and vernal pools. Flowers April-August (16-32 feet).	A	**Presumed absent.** The project site lacks vernal pools and is greater than22 feet, outside the upper elevation range. Habitat unsuitable for Solano grass.
Suisun marsh aster	*Symphyotrichum lentum*	Fed: CA: CNPS:	T E 1B.1	A perennial rhizomatous herb inhabiting wetlands, freshwater marsh, and brackish-marsh communities. Flowers May-November (0-984 feet).	A	**Presumed absent.** The project site lacks freshwater marshes or brackish-marsh habitat. Habitat unsuitable for Suisun marsh aster. Additionally, the nearest recorded CNDDB occurrence is approximately 9 miles of the project area.
Vernal pool smallscale	*Atripelx persistens*	Fed: CA: CNPS:	-- -- 1B.2	An annual herb inhabiting alkaline vernal pools. Flowers June-September (32-377 feet).	A	**Presumed absent**. The project site lacks vernal pools; habitat unsuitable for vernal pool smallscale. Additionally, the nearest recorded CNDDB occurrence is approximately 7 miles of the project area.
Woolly rose-mallow	*Hibiscus lasiocarpos* var. *occidentalis*	Fed: CA: CNPS	-- -- 1B.2	A perennial rhizomatous herb inhabiting freshwater wetlands, wet banks, and marshes. Flowers June-September (0-394 feet).	A	**Presumed absent.** The project site lacks marshes, wet banks and freshwater wetladns. The nearest CNDDB occurrence is greater than 10 miles and during the May 2015 botanical surveys the species was not observed.

Federal Designations (Fed):	**State Designations (CA):**
(FESA, USFWS)	(CESA, CDFW)
E: Federally listed, endangered	**E:** State-listed, endangered
T: Federally listed, threatened	**T:** State-listed, threatened
CT: Federal candidate, threatened	**CT:** State-candidate, threatened
PT: Federally proposed, threatened	**R:** State-designated, rare

Other Designations
CDFW_SSC: CDFW Species of Special Concern
CDFW_FP: CDFW Fully Protected

California Native Plant Society (CNPS) Designations*:*
Note: according to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code. This interpretation is inconsistent with other definitions.
1A: Plants presumed extinct in California.
1B: Plants rare and endangered in California and throughout their range.
2: Plants rare, threatened, or endangered in California but more common elsewhere in their range.
3: Plants about which need more information; a review list.
Plants 1B, 2, and 3 extension meanings:
_**.1** Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
_**.2** Fairly endangered in California (20-80% occurrences threatened)
_**.3** Not very endangered in California (<20% of occurrences threatened or no current threats known)

Habitat Potential
Absent [A] - No habitat present and no further work needed.
Habitat Present [HP] - Habitat is, or may be present. The species may be present.
Critical Habitat [CH] – Project is within designated Critical Habitat.

Potential for Occurrence Criteria:
Present: Species was observed on site during a site visit or focused survey.
High: Habitat (including soils and elevation factors) for the species occurs on site and a known occurrence has been recorded within 5 miles of the site.
Low/Moderate: Either low quality habitat (including soils and elevation factors) for the species occurs on site and a known occurrence exists within 5 miles of the site; or suitable habitat strongly associated with the species occurs on site, but no records were found within the database search.
Presumed Absent: Focused surveys were conducted and the species was not found, or species was found within the database search but habitat (including soils and elevation factors) do not exist on site, or the known geographic range of the species does not include the survey area.

Sources: (allaboutbirds 2015), (Barr 1991), (Bennett 2005), (California Herps 2015), (CBD 2012), (CDFG 1994), (CNDDB 2015), (CNPS 2015), (England 1997), (Jennings 1994), (Jepson 2012), (Keiller 2011), (Miller 1999), (NMFS 2005), (NMFS 2012) (UCD 2007), (UCD 2015), (USFWS 1983), (USFWS 1999), (USFWS 2002), (USFWS 2005), (USFWS 2006), (USFWS 2006b), (USFWS 2007), (USFWS 2007b), (USFWS 2012), (Zeiner 1988-1990).

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad is (Allendale (3812148) or Dixon (3812147) or Dozier (3812137) or Elmira (3812138))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	None	G2G3	S1S2	SSC
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	SSC
Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Astragalus tener var. ferrisiae Ferris' milk-vetch	PDFAB0F8R3	None	None	G2T1	S1	1B.1
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T2	S2	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex cordulata var. cordulata heartscale	PDCHE040B0	None	None	G3T2	S2	1B.2
Atriplex depressa brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
Atriplex persistens vernal pool smallscale	PDCHE042P0	None	None	G2	S2	1B.2
Branchinecta conservatio Conservancy fairy shrimp	ICBRA03010	Endangered	None	G1	S1	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
California macrophylla round-leaved filaree	PDGER01070	None	None	G3?	S3?	1B.2
Centromadia parryi ssp. parryi pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
Chloropyron molle ssp. hispidum hispid salty bird's-beak	PDSCR0J0D1	None	None	G2T2	S2	1B.1
Cicuta maculata var. bolanderi Bolander's water-hemlock	PDAPI0M051	None	None	G5T3T4	S2	2B.1
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Delphinium recurvatum recurved larkspur	PDRAN0B1J0	None	None	G3	S3	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Elaphrus viridis Delta green ground beetle	IICOL36010	Threatened	None	G1	S1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Fritillaria pluriflora adobe-lily	PMLIL0V0F0	None	None	G2G3	S2S3	1B.2
Gratiola heterosepala Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
Hibiscus lasiocarpos var. occidentalis woolly rose-mallow	PDMAL0H0R3	None	None	G5T2	S2	1B.2
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Isocoma arguta Carquinez goldenbush	PDAST57050	None	None	G1	S1	1B.1
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2	None	None	G5T2	S2	1B.2
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Lepidium latipes var. heckardii Heckard's pepper-grass	PDBRA1M0K1	None	None	G4T2	S2	1B.2
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S2S3	
Lilaeopsis masonii Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
Limosella australis Delta mudwort	PDSCR10050	None	None	G4G5	S2	2B.1
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Navarretia leucocephala ssp. bakeri Baker's navarretia	PDPLM0C0E1	None	None	G4T2	S2	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Neostapfia colusana	PMPOA4C010	Threatened	Endangered	G2	S2	1B.1
Colusa grass						
Northern Claypan Vernal Pool	CTT44120CA	None	None	G1	S1.1	
Northern Claypan Vernal Pool						
Orcuttia inaequalis	PMPOA4G060	Threatened	Endangered	G1	S1	1B.1
San Joaquin Valley Orcutt grass						
Plagiobothrys hystriculus	PDBOR0V0H0	None	None	G2	S2	1B.1
bearded popcornflower						
Spirinchus thaleichthys	AFCHB03010	Candidate	Threatened	G5	S1	SSC
longfin smelt						
Symphyotrichum lentum	PDASTE8470	None	None	G2	S2	1B.2
Suisun Marsh aster						
Trifolium amoenum	PDFAB40040	Endangered	None	G1	S1	1B.1
two-fork clover						
Trifolium hydrophilum	PDFAB400R5	None	None	G2	S2	1B.2
saline clover						
Tuctoria mucronata	PMPOA6N020	Endangered	Endangered	G1	S1	1B.1
Crampton's tuctoria or Solano grass						
Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Valley Needlegrass Grassland						

Record Count: 51

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
FEDERAL BUILDING, 2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
PHONE: (916)414-6600 FAX: (916)414-6713

Consultation Code: 08ESMF00-2015-SLI-1270 September 18, 2015
Event Code: 08ESMF00-2015-E-03633
Project Name: Sweeney/McCune Creek Outflow Recovery and Automation Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2)

of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

The table below outlines lead FWS field offices by county and land ownership/project type. Please refer to this table when you are ready to coordinate (including requests for section 7 consultation) with the field office corresponding to your project, and send any documentation regarding your project to that corresponding office. Therefore, the lead FWS field office may not be the office listed above in the letterhead. Please visit our office's website (http://www.fws.gov/sacramento) to view a map of office jurisdictions.

Lead FWS offices by County and Ownership/Program

County	Ownership/Program	Species	Office Lead*
Alameda	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Alameda	All ownerships but tidal/estuarine	All	SFWO
Alpine	Humboldt Toiyabe National Forest	All	RFWO
Alpine	Lake Tahoe Basin Management Unit	All	RFWO
Alpine	Stanislaus National Forest	All	SFWO
Alpine	El Dorado National Forest	All	SFWO
Colusa	Mendocino National Forest	All	AFWO
Colusa	Other	All	By jurisdiction (see map)
Contra Costa	Legal Delta (Excluding ECCHCP)	All	BDFWO
Contra Costa	Antioch Dunes NWR	All	BDFWO
Contra Costa	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Contra Costa	All ownerships but tidal/estuarine	All	SFWO

El Dorado	El Dorado National Forest	All	SFWO
El Dorado	LakeTahoe Basin Management Unit		RFWO
Glenn	Mendocino National Forest	All	AFWO
Glenn	Other	All	By jurisdiction (see map)
Lake	Mendocino National Forest	All	AFWO
Lake	Other	All	By jurisdiction (see map)
Lassen	Modoc National Forest	All	KFWO
Lassen	Lassen National Forest	All	SFWO
Lassen	Toiyabe National Forest	All	RFWO
Lassen	BLM Surprise and Eagle Lake Resource Areas	All	RFWO
Lassen	BLM Alturas Resource Area	All	KFWO
Lassen	Lassen Volcanic National Park	All (includes Eagle Lake trout on all ownerships)	SFWO
Lassen	All other ownerships	All	By jurisdiction (see map)

Marin	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Marin	All ownerships but tidal/estuarine	All	SFWO
Mendocino	Russian River watershed	All	SFWO
Mendocino	All except Russian River watershed	All	AFWO
Napa	All ownerships but tidal/estuarine	All	SFWO
Napa	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Nevada	Humboldt Toiyabe National Forest	All	RFWO
Nevada	All other ownerships	All	By jurisdiction (See map)
Placer	Lake Tahoe Basin Management Unit	All	RFWO
Placer	All other ownerships	All	SFWO
Sacramento	Legal Delta	Delta Smelt	BDFWO
Sacramento	Other	All	By jurisdiction (see map)
San Francisco	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO

San Francisco	All ownerships but tidal/estuarine	All	SFWO
San Mateo	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
San Mateo	All ownerships but tidal/estuarine	All	SFWO
San Joaquin	Legal Delta excluding San Joaquin HCP	All	BDFWO
San Joaquin	Other	All	SFWO
Santa Clara	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
Santa Clara	All ownerships but tidal/estuarine	All	SFWO
Shasta	Shasta Trinity National Forest except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Shasta	Hat Creek Ranger District	All	SFWO
Shasta	Bureau of Reclamation (Central Valley Project)	All	BDFWO
Shasta	Whiskeytown National Recreation Area	All	YFWO
Shasta	BLM Alturas Resource Area	All	KFWO

Shasta	Caltrans	By jurisdiction	SFWO/AFWO
Shasta	Ahjumawi Lava Springs State Park	Shasta crayfish	SFWO
Shasta	All other ownerships	All	By jurisdiction (see map)
Shasta	Natural Resource Damage Assessment, all lands	All	SFWO/BDFWO
Sierra	Humboldt Toiyabe National Forest	All	RFWO
Sierra	All other ownerships	All	SFWO
Solano	Suisun Marsh	All	BDFWO
Solano	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Solano	All ownerships but tidal/estuarine	All	SFWO
Solano	Other	All	By jurisdiction (see map)
Sonoma	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Sonoma	All ownerships but tidal/estuarine	All	SFWO
Tehama	Mendocino National Forest	All	AFWO
	Shasta Trinity National Forest		

Tehama	except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Tehama	All other ownerships	All	By jurisdiction (see map)
Yolo	Yolo Bypass	All	BDFWO
Yolo	Other	All	By jurisdiction (see map)
All	FERC-ESA	All	By jurisdiction (see map)
All	FERC-ESA	Shasta crayfish	SFWO
All	FERC-Relicensing (non-ESA)	All	BDFWO
***Office Leads:**			
AFWO=Arcata Fish and Wildlife Office			
BDFWO=Bay Delta Fish and Wildlife Office			
KFWO=Klamath Falls Fish and Wildlife Office			
RFWO=Reno Fish and Wildlife Office			
YFWO=Yreka Fish and Wildlife Office			

Attachment

Official Species List

Provided by:

Sacramento Fish and Wildlife Office
FEDERAL BUILDING
2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
(916) 414-6600

Consultation Code: 08ESMF00-2015-SLI-1270
Event Code: 08ESMF00-2015-E-03633

Project Type: TRANSPORTATION

Project Name: Sweeney/McCune Creek Outflow Recovery and Automation Project
Project Description: The Solano Irrigation District (District), in cooperation with the Bureau of Reclamation
proposes to install weirs within Sweeney Creek and McCune Creek in Solano County, California. The purpose of the Sweeney/McCune Creeks Outflow Recovery and Automation Project (project) is to construct two (2) long crested weirs, in each of the creeks.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

Project Location Map:

Project Coordinates: MULTIPOLYGON (((-121.87099456787108 38.410625506038215, -121.8709087371826 38.409078623082515, -121.8678617477417 38.40899455240797, -121.86792612075804 38.409515789013604, -121.85951471328734 38.40946534692574, -121.85970783233641 38.40976799892469, -121.86805486679076 38.409936138376395, -121.86874151229857 38.41101222160327, -121.87093019485474 38.413870489860294, -121.8729043006897 38.41736751133856, -121.87399864196777 38.417485196617314, -121.87322616577148 38.415198705453335, -121.871337890625 38.412037848513556, -121.86996459960938 38.41064231980149, -121.87099456787108 38.410625506038215)))

Project Counties: Solano, CA

Endangered Species Act Species List

There are a total of 9 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	**Status**	**Has Critical Habitat**	**Condition(s)**
California red-legged frog *(Rana draytonii)* Population: Entire	Threatened	Final designated	
California tiger Salamander *(Ambystoma californiense)* Population: U.S.A. (Central CA DPS)	Threatened	Final designated	
Crustaceans			
Conservancy fairy shrimp *(Branchinecta conservatio)* Population: Entire	Endangered	Final designated	
Vernal Pool fairy shrimp *(Branchinecta lynchi)* Population: Entire	Threatened	Final designated	
Vernal Pool tadpole shrimp *(Lepidurus packardi)* Population: Entire	Endangered	Final designated	
Fishes			
Delta smelt *(Hypomesus*	Threatened	Final designated	

transpacificus) Population: Entire			
steelhead *(Oncorhynchus (=salmo) mykiss)* Population: Northern California DPS	Threatened	Final designated	
Insects			
Valley Elderberry Longhorn beetle *(Desmocerus californicus dimorphus)* Population: Entire	Threatened	Final designated	
Reptiles			
Giant Garter snake *(Thamnophis gigas)* Population: Entire	Threatened		

Critical habitats that lie within your project area

There are no critical habitats within your project area.

CNPS California Native Plant Society Rare and Endangered Plant Inventory

Plant List

4 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad 38121D8

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	1B.2	S3	G3
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	2B.2	S2	GU
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Polemoniaceae	annual herb	1B.1	S2	G4T2
Plagiobothrys hystriculus	bearded popcorn-flower	Boraginaceae	annual herb	1B.1	S2	G2

Suggested Citation

CNPS, Rare Plant Program. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website http://www.rareplants.cnps.org [accessed 05 May 2015].

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CNPS California Native Plant Society Rare and Endangered Plant Inventory

Plant List

2 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad 38121D7

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	1B.2	S2	G2T2
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbiferous herb	1B.2	S3	G3

Suggested Citation

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Plant List

24 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad 38121C7

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Astragalus tener var. ferrisiae	Ferris' milk-vetch	Fabaceae	annual herb	1B.1	S1	G2T1
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	1B.2	S2	G2T2
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	1B.2	S2	G3T2
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb	1B.2	S2	G2
Atriplex persistens	vernal pool smallscale	Chenopodiaceae	annual herb	1B.2	S2	G2
Centromadia parryi ssp. rudis	Parry's rough tarplant	Asteraceae	annual herb	4.2	S3	G3T3
Cicuta maculata var. bolanderi	Bolander's water-hemlock	Apiaceae	perennial herb	2B.1	S2	G5T3T4
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	2B.2	S2	GU
Etriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	1B.2	S2	G2
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	1B.2	S2	G2
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	1B.2	S2	G2
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Malvaceae	perennial rhizomatous herb	1B.2	S2	G5T2
Isocoma arguta	Carquinez goldenbush	Asteraceae	perennial shrub	1B.1	S1	G1
Lathyrus jepsonii var. jepsonii	Delta tule pea	Fabaceae	perennial herb	1B.2	S2	G5T2
Legenere limosa	legenere	Campanulaceae	annual herb	1B.1	S2	G2
Lepidium latipes var. heckardii	Heckard's pepper-grass	Brassicaceae	annual herb	1B.2	S2	G4T2
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	1B.1	S2	G2
Limosella australis	Delta mudwort	Scrophulariaceae	perennial stoloniferous herb	2B.1	S2	G4G5
Myosurus minimus ssp. apus	little mousetail	Ranunculaceae	annual herb	3.1	S2	G5T2Q
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Polemoniaceae	annual herb	1B.1	S2	G4T2
Neostapfia colusana	Colusa grass	Poaceae	annual herb	1B.1	S2	G2
Plagiobothrys hystriculus	bearded popcorn-flower	Boraginaceae	annual herb	1B.1	S2	G2

Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	1B.2	S2	G2
Tuctoria mucronata	Crampton's tuctoria or Solano grass	Poaceae	annual herb	1B.1	S1	G1

Suggested Citation

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Plant List

24 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad 38121C8

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	1B.2	S2	G2T2
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	1B.2	S2	G3T2
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb	1B.2	S2	G2
California macrophylla	round-leaved filaree	Geraniaceae	annual herb	1B.1	S2	G2
Centromadia parryi ssp. parryi	pappose tarplant	Asteraceae	annual herb	1B.2	S1	G3T1
Centromadia parryi ssp. rudis	Parry's rough tarplant	Asteraceae	annual herb	4.2	S3	G3T3
Chloropyron molle ssp. hispidum	hispid bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	1B.1	S2	G2T2
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	1B.2	S3	G3
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	2B.2	S2	GU
Etriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	1B.2	S2	G2
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbiferous herb	1B.2	S3	G3
Isocoma arguta	Carquinez goldenbush	Asteraceae	perennial shrub	1B.1	S1	G1
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	1B.1	S1	G1
Lasthenia ferrisiae	Ferris' goldfields	Asteraceae	annual herb	4.2	S3	G3
Lathyrus jepsonii var. jepsonii	Delta tule pea	Fabaceae	perennial herb	1B.2	S2	G5T2
Legenere limosa	legenere	Campanulaceae	annual herb	1B.1	S2	G2
Myosurus minimus ssp. apus	little mousetail	Ranunculaceae	annual herb	3.1	S2	G5T2Q
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Polemoniaceae	annual herb	1B.1	S2	G4T2
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	Poaceae	annual herb	1B.1	S1	G1
Perideridia gairdneri ssp. gairdneri	Gairdner's yampah	Apiaceae	perennial herb	4.2	S4	G5T4
Plagiobothrys hystriculus	bearded popcorn-flower	Boraginaceae	annual herb	1B.1	S2	G2
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	1B.2	S2	G2
Trifolium amoenum	two-fork clover	Fabaceae	annual herb	1B.1	S1	G1

Trifolium hydrophilum	saline clover	Fabaceae	annual herb	1B.2	S2	G2

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Appendix E:
Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM FOR THE SWEENEY/MCCUNE CREEK OUTFLOW RECOVERY AND AUTOMATION PROJECT

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
AIR QUALITY **AQ-1:** Route and schedule construction traffic to avoid peak travel times as much as possible to reduce congestion and related air quality impacts caused by idling vehicles along local roads.	Prior to and during construction.	Solano Irrigation District and Contractor		
AQ-2: The following fugitive dust mitigation measures will be followed: • Water all active construction areas to contain dust as necessary. Frequency of application should be based on the type of operation, soil and wind exposure; • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard; and • Enclose, cover, or water three times daily exposed stockpiles, such as dirt, sand, etc.	During Construction	Contractor		
AQ-3: The following practices describe exhaust emission control from diesel powered fleets working at a construction site. California regulations limit idling from both on-road and off-road diesel powered equipment. The California Air Resources Board enforces the idling limitations: • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site. Although not required by local or state regulation, many construction companies have equipment inspection and maintenance programs to ensure work and fuel efficiencies. • Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified	During Construction	Contractor		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
mechanic and determine to be running in proper condition before it is operated.				
BIOLOGICAL RESOURCES **BIO-1:** Temporary construction staging areas and access roads will be strategically placed to avoid and/or minimize impacts. Environmentally Sensitive Area (ESA) fencing will be installed in coordination with a biologist in order to minimize soil disturbance and erosion around the project area.	Prior to Construction	Solano Irrigation District and Contractor		
BIO-2: Erosion Control Measures must be implemented during construction. To minimize the mobilization of sediment to adjacent water bodies, the following erosion-control and sediment-control measures will be included in the construction specifications: • Soil exposure must be minimized through the use of temporary BMPs, groundcover, and stabilization measures; • The contractor must conduct periodic maintenance of erosion- and sediment-control measures.	During Construction	Contractor		
BIO-3: To conform to water quality requirements, the (SWPPP) must include the following: • Vehicle maintenance, staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants must be a minimum of 100 feet from aquatic habitats. Any necessary equipment washing must occur where the water cannot flow into Sweeney Creek or McCune Creek. The project proponent will prepare a spill prevention and clean-up plan; • Construction equipment will not be operated in flowing water; • Construction work must be conducted according to site-specific construction plans that minimize the potential for sediment input to Sweeney Creek and McCune Creek; • Raw cement, concrete or concrete washings, asphalt, paint or other coating	Prior to and during Construction	Solano Irrigation District and Contractor		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
material, oil or other petroleum products, or any other substances that could be hazardous to aquatic life must be prevented from contaminating the soil or entering Sweeney Creek and McCune Creek; • Equipment used in and around Sweeney Creek and McCune Creek must be in good working order and free of dripping or leaking engine fluids; and, • Any surplus concrete rubble, asphalt, or other debris from construction must be taken to a County approved disposal site.				
BIO-4: Upon completion of construction activities, any barriers to surface water flow must be removed in a manner that would allow flow to resume with the least disturbance to the substrate.	After Construction	Solano Irrigation District and Contractor		
BIO-5: Vegetation clearing must only occur within the delineated project boundaries. Vegetation should be removed in the late fall through winter months, to the greatest extent practicable.	Prior to Construction	Solano Irrigation District and Contractor		
BIO-6: Clean Water Act Section 401 and 404 permits and the California Department of Fish and Wildlife 1602 Streambed Alteration Agreement Permit will be obtained prior to construction.	Prior to Construction	Solano Irrigation District		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
BIO-7: Native fill will be utilized whenever possible.	During and after Construction	Solano Irrigation District and Contractor		
BIO-8: Temporary staging areas, storage areas, and access roads involved with this project will take place, to the extent feasible, in the area of direct impact.	Prior to and During Construction	Solano Irrigation District and Contractor		
BIO-9: All hydroseed and plant mixes must consist of a biologist approved plant palate seed mix from native, locally adapted species.	During and After construction	Solano Irrigation District and Contractor		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
BIO-10: Before any activities begin on the project, the project biologist will conduct environmental awareness training for all construction personnel. At a minimum, the training will include a description of sensitive species with potential to occur, including white-tailed kite, burrowing owl, Swainson's hawk, and western pond turtle and their habitat, the project specific measures being implemented to conserve the species, and the boundaries within which the project may be accomplished.	Prior to Construction	Solano Irrigation District and Contractor		
BIO-11: If sensitive species are encountered during the course of construction, construction will temporarily stop within the area of discovery. The project biologist will be contacted immediately for further guidance. Work will not resume in the area of discovery until the project biologist has cleared the area or the animal has passively left the construction area unharmed.	During Construction	Solano Irrigation District and Contractor		
BIO-12: All food-related trash must be disposed into closed containers and must be removed from the project area daily. Construction personnel must not feed or otherwise attract wildlife to the project area.	During Construction	Contractor		
BIO-13: If possible, vegetation removal should occur outside the breeding season for all bird species (March 1st –September 1st).	Prior to Construction	Solano Irrigation District		
BIO-14: If vegetation removal is to take place during the nesting season (March 1st – September 1st), a pre-construction nesting bird survey must be conducted within 7 days prior to vegetation removal. Within 2 weeks of the nesting bird survey, all vegetation cleared by the biologist will be removed by the contractor. A minimum 100 foot no-disturbance buffer will be established around any active nest of migratory birds and a minimum 300 foot no-disturbance buffer will be	Prior to Construction	Solano Irrigation District		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
established around any nesting raptor species. The contractor must immediately stop work in the nesting area until the appropriate buffer is established and is prohibited from conducting work that could disturb the birds (as determined by the project biologist and in coordination with wildlife agencies) in the buffer area until a qualified biologist determines the young have fledged. A reduced buffer can be established if determined appropriate by the project biologist and approved by CDFW.				
BIO-15: Qualified biologists will conduct a pre-construction survey for burrowing owl within 1-2 weeks of the start of construction. If burrowing owls are not detected, no further mitigation will be required. If burrowing owls are observed within 500 feet of the project area, the following measures will be implemented:	Prior to Construction	Solano Irrigation District		
BIO-16: Occupied burrows will not be disturbed during the breeding season (February 1st to August 31st) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. If avoidance of active nests is preferred, the biologist will consult with the CDFW to determine appropriate buffer widths and acreage of foraging habitat to be permanently preserved contiguous with the occupied burrow site. The Contractor will not disturb identified burrowing owl burrows until the qualified biologist verifies it has been cleared.	Prior to and During Construction	Solano Irrigation District and Contractor		
BIO-17: To avoid impacts to western pond turtles, the project biologist will conduct a pre-construction survey of Sweeney Creek and McCune Creek and adjacent banks and upland habitats within the project area. Surveys will be conducted no more than 24 hours prior to onset of construction. During April-August the biologist should look specifically for nests within upland habitats including grasslands. During initial ground disturbing activities within Sweeney Creek and McCune Creek, a qualified biologist will be present. If a turtle is located within the construction area, a qualified biologist will capture the turtle and relocate it to an appropriate habitat a safe distance from the construction site.	Prior to and During Construction	Solano Irrigation District and Contractor		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
BIO-18: Pumps used to dewater the project area will be screened to protect aquatic species. Screen openings will be no greater than 3 inches.	Prior to and During Construction	Solano Irrigation District and Contractor		
BIO-19: Construction personnel will operate vehicles at a speed no greater than 15 mph on unpaved roads within the project area.	During Construction	Contractor		
BIO-20: Should destruction of occupied burrowing owl burrows be unavoidable during the non-breeding season (September 1st – January 31st) either, unsuitable burrows will be enhanced (enlarged or cleared of debris) or new burrows will be created (by installing artificial burrows) at a ratio of 2:1 on lands approved by the CDFW. Newly created burrows will follow guidelines established by the CDFW.	Prior to Construction	Solano Irrigation District		
BIO-21: Prior to arrival at the project site and prior to leaving the project site, construction equipment that may contain invasive plants and/or seeds will be cleaned to reduce the spreading of noxious weeds.	During Construction	Contractor		
BIO-22: A protocol level pre-construction survey will be conducted for Swainson's hawk. This entails surveying all suitable nesting sites within a ¼ mile radius of the project area for evidence of Swainson's hawk activity according to the protocol survey methods recommended by the Swainson's Hawk Technical Advisory Committee. If active nesting is identified within the ¼ mile radius, coordination with CDFW is required.	Prior to and During Construction	Solano Irrigation District		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
CULTURAL RESOURCES **CR-1:** If previously unidentified cultural materials are unearthed during construction, work shall be halted in that area until a qualified archaeologist can assess the significance of the find and develop a plan for documentation and removal of resources if necessary. Additional archaeological survey will be needed if project limits are extended beyond the present survey limits.	During Construction	Solano Irrigation District and Contractor		
CR-2: Section 5097.94 of the Public Resources Code and Section 7050.5 of the California Health and Safety Code protect Native American burials, skeletal remains and grave goods, regardless of age and provide method and means for the appropriate handling of such remains. If human remains are encountered, work should halt in that vicinity and the county coroner should be notified immediately. At the same time, an archaeologist should be contacted to evaluate the situation. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within twenty-four hours of such identification. CEQA details steps to be taken if human burials are of Native American origin.	Prior to and During Construction	Solano Irrigation District and Contractor		
CR-3: Solano Irrigation District will invite Yocha Dehe Wintun Nation to a pre-construction meeting to address cultural sensitivity for construction crews excavating within the creek channels. In addition, Solano Irrigation District will inform the Yocha Dehe Wintun Nation of the construction schedule to ensure the tribe has an opportunity to monitor the initial ground disturbance within the creek channels.	Prior to and During Construction	Solano Irrigation District		
GEOLOGY AND SOILS **GEO-1:** Solano Irrigation District and contractor shall implement a SWPPP to include erosion control methods. This SWPPP shall be prepared for the Section 402 permit, *NPDES General Permit for Discharges of Storm Water Associated with Construction Activity*.	Prior to Construction	Solano Irrigation District and Contractor		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
NOISE **NOI-1:** The following shall apply to all construction generated noise: • Do not exceed 60 dBA at 50 feet from the job site activities from 6:00 P.M. to 7:00 A.M. on weekdays, or from 5:00 PM to 8:00 AM on Saturday and Sundays. • Equip an internal combustion engine with the manufacturer recommended muffler. • Do not operate an internal combustion engine on the job site without the appropriate muffler.	During Construction	Contractor		
HYDROLOGY AND WATER QUALITY **WQ-1:** The following measures will be implemented to ensure best management practices: • The area of construction and disturbance would be limited to as small an area as feasible to reduce erosion and sedimentation. • Measures would be implemented during land-disturbing activities to reduce erosion and sedimentation. These measures may include mulches, soil binders and erosion control blankets, silt fencing, fiber rolls, temporary berms, sediment de-silting basins, sediment traps, and check dams. • Existing vegetation would be protected where feasible to reduce erosion and sedimentation. Vegetation would be preserved by installing temporary fencing, or other protection devices, around areas to be protected. • Exposed soils would be covered by loose bulk materials or other materials to reduce erosion and runoff during rainfall events. • Exposed soils would be stabilized, through watering or other measures, to prevent the movement of dust at the Project site caused by wind and construction activities such as traffic and grading activities. • All construction roadway areas would be properly protected to prevent excess erosion, sedimentation, and water pollution. • All vehicle and equipment maintenance procedures would be conducted	During Construction	Contractor		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
outside of the channels. • All concrete curing activities would be conducted to minimize spray drift and prevent curing compounds from entering the waterway directly or indirectly. • All construction materials, vehicles, stockpiles, and staging areas would be situated outside of the channel. All stockpiles would be covered, as feasible. • Energy dissipaters and erosion control pads would be provided at the bottom of slope drains. Other flow conveyance control mechanisms may include earth dikes, swales, or ditches. Stream bank stabilization measures would also be implemented. • All erosion control measures and storm water control measures would be properly maintained until the site has returned to a pre-construction state. • All disturbed areas would be restored to pre-construction contours and revegetated, either through hydroseeding or other means, with native or approved non-invasive exotic species. • All construction materials would be hauled off-site after completion of construction.				
WQ-2: The proposed Project would require a NPDES General Construction Permit for Discharges of storm water associated with construction activities (Construction General Permit 2012-0006-DWQ). A SWPPP would also be developed and implemented as part of the Construction General Permit.	Prior to Construction	Solano Irrigation District		
WQ-3: The construction contractor shall adhere to the SWRCB Order No. 2012-0006-DWQ NPDES Permit pursuant to Section 402 of the CWA. This permit authorizes storm water and authorized non-storm water discharges from construction activities. As part of this Permit requirement, a SWPPP shall be prepared prior to construction consistent with the requirements of the RWQCB. This SWPPP will incorporate all applicable BMPs to ensure that adequate measures are taken during construction to minimize impacts to water quality.	During Construction	Contractor		

Appendix F:
Public Comments

TO BE INCLUDED WITH FINAL DOCUMENT